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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/612,797	07/10/2000	Hiromichi Ishibashi	MTS-3201US	9359

7590 02/25/2005

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EXAMINER

BATTAGLIA, MICHAEL V

ART UNIT PAPER NUMBER

2652

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/612,797

Applicant(s)

ISHIBASHI ET AL.

Examiner

Michael V Battaglia

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Maeda (US 5,153,872).

In regard to claim 10, Maeda discloses a method of reducing inter-symbol interference on multivalued data in a read process by adjusting the power of a write pulse in a multivalue write process, comprising the steps of: (a) storing temporarily multivalued data sequentially (each datum of multivalued Q data to be recorded on track T_n is sequentially temporarily stored as Q_n in the memory circuit of Fig. 1, element 101 (Col. 4, lines 11-17)); (b) assigning a write laser power respectively to each multivalue (Fig. 1, element Q_n); (c) modifying the write laser powers sequentially using multivalues of a preceding mark value and a following mark value (the write laser power of each Q_n is sequentially modified by the computation circuit of Fig. 1, element 103 using multivalues of preceding mark value Q_{n-1} and following mark value Q_{n+1} (Col. 4, lines 43-57 and Col. 7, lines 9-39)); and d) recording sequentially on a single track the modified write laser powers (the modified laser power of each Q_n is sequentially recorded on the single track T_n be the cutting unit of Fig. 1, element 2). It is noted that Q_{n-1} precedes Q_n because it is on the inner circumferential side of Q_n and Q_{n-2} follows Q_n because it is on the outer circumferential side of Q_n (Col. 4, lines 16-20).

In regard to claim 11, Maeda discloses that step (c) includes determining a modification quantity by an average value of the preceding mark value and the following mark value to be stored (Col. 8, lines 11-35). It is noted that the claimed "average value" is shown through weighting preceding and following values as shown by the coefficients used on the values "S".

Allowable Subject Matter

2. Claims 8 and 9 are allowable over the prior art of record. None of the references of record alone or in combination suggest or fairly teach a method for recording a sequence of multivalued data on a recording medium, comprising the steps of: (a) receiving the sequence of multivalued data for consecutive recording on a single track of the recording medium; (b) representing the sequence received in step (a) by a sequence of power levels; **(c) grouping the sequence of power levels in step (b) into groups, with each group having first, second and third consecutive power levels from the sequence of power levels; (d) averaging the first and third power levels to obtain an averaged power level; (e) modifying the second power level in each group by a derived value dependent on the averaged power level; and (f) recording on the single track the sequence of power levels of step (b) after being modified by step (e).**

Response to Arguments

3. Applicant's arguments filed August 25, 2004 with respect to Maeda have been fully considered but they are not persuasive. Applicant argues that Maeda does not disclose a step of recording sequentially on a single track the modified write powers. However, the claimed modified write powers read on the sequentially modified Q_n powers of Maeda which are sequentially recorded on the single track T_n as discussed in the claim rejection above.

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Conclusion

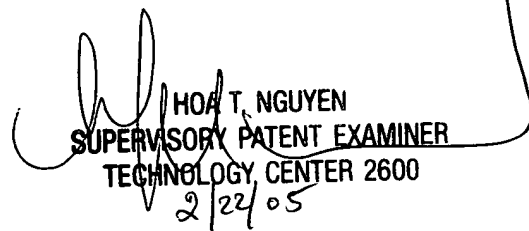
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V Battaglia whose telephone number is (703) 305-4534. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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